DOCUMENT RESUME

ED 204 488 CE 028 851

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TITLE Direct Program Evaluation. Competency-Based Vocational Education Administrator Module Series. Leadership and Training Series No. 588-10.
INSTITUTION Ohio State Univ., Columbus. National Center for Research in Vocational Education.
SPONS AGENCY Consortium for the Development of Professional Materials for Vocational Education.
PUB DATE 81
NOTE 79p.; Some pages will not reproduce well due to small print. For related documents see CE 028 850-853, CE 028 716-717, and ED 164 746-754.
AVAILABLE FROM National Center Publications, The National Center for Research in Vocational Education, The Ohio State University, 1960 Kenny Road, Columbus, OH 43210 LT 588-10, $5.10; quantity discounts available).

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Administrator Education; Administrator Role; Behavioral Objectives; Competence; *Competency Based Education; Cost Effectiveness; Data Analysis; *Educational Administration; Evaluation Methods; Evaluation Needs; Higher Education; Information Utilization; Inservice Teacher Education; *Job Skills; Learning Activities; Learning Modules; Management Development; Postsecondary Education; Preservice Teacher Education; *Program Evaluation; *Vocational Education

ABSTRACT

Designed to provide pre- and inservice vocational education administrators with background information and hands-on experiences for acquiring the skills necessary to direct a program evaluation, this competency-based learning module contains an introduction and four sequential learning experiences. Each learning experience consists of an overview, required and optional learning activities, a self-check section, and a series of model answers for use with the self-check section. Topics covered in the first learning experience are the purpose of program evaluation, evaluation methods, and cost effectivess/benefit analysis of postsecondary vocational programs. Developing evaluation plans, preparing to implement an evaluation plan, and program evaluation skills for administrators are among the areas examined in the second learning experience. Discussed next are using evaluation data, presenting evaluation reports, and developing and evaluating conclusions and recommendations. The final learning experience involves actually directing a program evaluation. (Related competency-based vocational education administrator modules covering curriculum development, improving instruction, program promotion, staff development, and student recruitment and admissions are available separately through ERIC--see note.) (MN)

ED204488

Leadership and Training Series No. 58B-10

DIRECT PROGRAM EVALUATION

COMPETENCY-BASED VOCATIONAL EDUCATION ADMINISTRATOR MODULE SERIES

Consortium for the Development of Professional
Materials for Vocational Education

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1981

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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FOREWORD

The need for competent administrators of vocational education has long been recognized. The rapid expansion of vocational education programs and increased student enrollments have resulted in a need for increasing numbers of vocational administrators at both the secondary and postsecondary levels. Preservice and inservice administrators need to be well prepared for the complex and unique skills required to successfully direct vocational programs.

The effective training of local administrators has been hampered by the limited knowledge of the competencies needed by local administrators and by the limited availability of competency-based materials specifically designed for the preparation of vocational administrators. In response to this pressing need, the Occupational and Adult Education Branch of the U.S. Office of Education, under provisions of part C--Research of the Vocational Education Amendments of 1968, funded the National Center for a scope of work entitled "Development of Competency-Based Instructional Materials for Local Administrators of Vocational Education" during the period 1975-77. That project had two major objectives:

1. To conduct research to identify and nationally verify the competencies considered important to local administrators of vocational education.
2. To develop and field test a series of prototypic competency-based instructional packages and a user's guide. One hundred sixty-six (166) high priority competencies were identified and six prototypic modules and a user's guide were developed, field tested, and revised.

While six modules had been developed, many more were needed to have competency-based materials that would address all the important competencies that had been identified and verified. In September 1978 several states joined with the National Center for Research in Vocational Education to form the Consortium for the Development of Professional Materials for Vocational Education. Those states were Illinois, Ohio, North Carolina, New York, and Pennsylvania. The first five states were joined by Florida and Texas later in the first year. The first objective of the Consortium was to develop and field test additional competency-based administrator modules of which this is one.

Several persons contributed to the successful development and field testing of this module on directing curriculum development. Lois G. Harrington, Program Associate, assumed the major

responsibility for reviewing the literature and for preparing the actual manuscript. Special recognition also goes to Tim Wentling, Associate Professor and Director, Office of Vocational Education Research, University of Illinois, Urbana, who served as the major consultant in developing materials for the module. Credit is also extended to William Hill, Superintendent of Schools, Community Unit District #1, Charleston, Illinois for his assistance as a consultant.

Acknowledgement is given to the three official reviewers who provided critiques of the module and suggestions for its improvement: Roland Alexander, Placement, Department of Career/Vocational Education, East St. Louis, Illinois; Doris Belton, Chief, Bureau of Occupational Education Program Services, State Education Department, Albany, New York; and Harold Finn, Regional Vocational Administrator, Program Approval & Evaluation, Illinois Office of Education, Mt. Vernon, Illinois.

Credit goes to Glen E. Fardig, consultant, who helped to refine the module for publication after field testing; and to Robert E. Norton, Consortium Program Director, for providing program leadership and content reviews. Thanks go to James B. Hamilton, Senior Research Specialist, for his helpful assistance; and to Ferman B. Moody, Associate Director for Personnel Development, for his administrative assistance.

Appreciation is also extended to Calvin Cotrell, James Haire, George Kosbab, Patricia Lindley, Helen Lipscomb, Aaron J. Miller, Dominic Mohamed, Robert Mullen, James Parker, Dale Post, Wayne Ramp, and Kenneth Swatt for their service as state representatives, state department contacts, and field-test coordinators; and to the other teacher educators and local administrators of vocational education who used the modules and provided valuable feedback and suggestions for their improvement. Last, but certainly not least, thanks and credit are due Deborah Linehan, Consortium Program Secretary, for her patience and expert skill in processing the many words necessary to make this module a quality document.

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

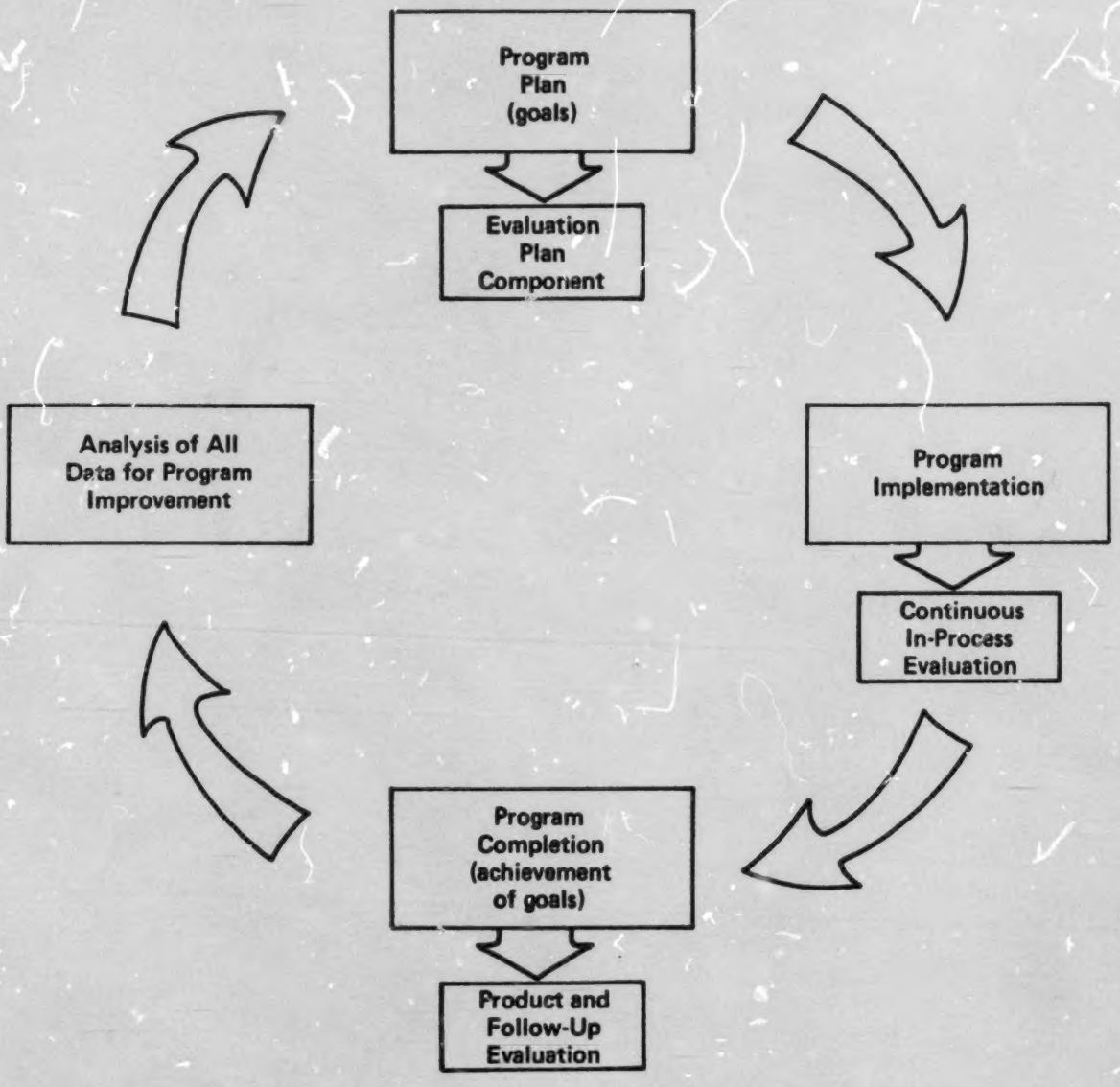
INTRODUCTION

Occupational technology is in a state of constant change. Rising costs have accentuated citizens' concern with how their tax dollars are being spent. State and federal agencies want to be sure that special populations are receiving a quality education in the least restrictive environment. Vocational educators want to know if their graduates are being placed and are succeeding in their chosen occupations. In order to meet all these concerns, program evaluation is essential.

Program evaluation, as shown in the figure that follows, is a continual process. One can evaluate a single occupational speciality (e.g., welding), a vocational service area (e.g., trade and industrial education), the total vocational program within the educational institution, the district vocational program, or the district educational program as a whole. Whatever the scope of the program to be evaluated, the evaluation process does not start with data collection or end with the publication and dissemination of an evaluation report of findings. Evaluation starts with a need to answer some questions or make some decisions concerning a program. Data collection is designed to provide those answers or that data for decision making. Thus, an evaluation includes using that data to make decisions--to make changes. This, in turn, requires the completion of additional evaluation efforts in order to determine the effectiveness of the decisions and changes made--and so the process continues its unending cycle.

In today's world of educational specialization, it is not uncommon for the responsibility for the various components of the evaluation process to be divided. For example, an administrator may define the scope and purpose of the evaluation. An evaluation specialist may plan the methodology, select or develop the necessary instruments, and conduct the actual evaluation effort. A group of selected staff may use the results to brainstorm for interpretations, conclusions, and recommendations. Final evaluation reports for various audiences may be prepared by public relations staff. And finally, the process flows back to the administrator, who needs to make decisions or changes based on the evaluation findings and recommendations. The strength of this shared effort is founded on the fact that it should yield more objective results, since the evaluators are specialists with no vested interest in the program(s) being evaluated, with no need to provide justification for program effectiveness.

On the other hand, however, it is very easy for a shared effort to deteriorate into a fragmented effort, with evaluation methodology and data unrelated to the key questions raised initially, or with evaluation results treated as an end in



PROGRAM EVALUATION CYCLE

themselves and never being translated into action, change, or decision making. This highlights the absolute necessity for active involvement of the administrator in the total process. If you as an administrator understand the whole process and regard your responsibility for its total management as important, then you will "keep a hand in" throughout--leading, encouraging, directing, monitoring, suggesting, and doing your share. Only then will evaluation be a unified effort with usable results. Only then will evaluation result in action.

This module is designed to provide you with background information on the evaluation process and hands-on experiences that will help you acquire the skills you need to define your own administrative role in evaluation and effectively direct a vocational program evaluation.

Module Structure and Use

This module contains an introduction and four sequential learning experiences. Overviews, which precede each learning experience, contain the objectives for each experience and a brief description of what the learning experience involves.

Objectives

Terminal Objective: While working in an actual administrative situation, direct program evaluation. Your performance will be assessed by your resource person using the "Administrator Performance Assessment Form," pp. 75-77. (Learning Experience IV)

Enabling Objectives:

1. After completing the required reading, demonstrate knowledge of the need for, and important considerations involved in, directing program evaluation. (Learning Experience I)
2. After completing the required reading, develop two evaluation plans based on the information provided in given case situations. (Learning Experience II)
3. After completing the required reading, plan how to use the evaluation data provided in a given case study. (Learning Experience III)

Resources

A list of the outside resources that supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references specific to your situation, and (3) to get assistance in setting up activities with peers or observations of skilled administrators.

Learning Experience I

Optional

- REFERENCE: Kim, Jin Eun. Cost Effectiveness/Benefit Analysis of Postsecondary Vocational Programs. Indianapolis, IN: Indiana State Board of Vocational and Technical Education, 1977.

- AN ADMINISTRATOR experienced in the direction of program evaluation whom you can interview.
- REFERENCE: Alkin, Marvin C. et al. Evaluation and Decision Making: The Title VII Experience. Los Angeles, CA: University of California, Center for the Study of Evaluation, 1974.
- REFERENCE: Combs, Arthur W. "Educational Accountability from a Humanistic Perspective." Educational Researcher. 2 (September 1973): 19-21.
- REFERENCE: Macdonald, James B. "An Evaluation of Evaluation." The Urban Review. 7 (January 1974): 3-14.
- REFERENCE: Provus, Malcolm. Discrepancy Evaluation: For Educational Program Improvement and Assessment. Berkeley, CA: McCutchan Publishing Corporation, 1971.
- REFERENCE: Scriven, Michael. "The Methodology of Evaluation." In Perspectives of Curriculum Evaluation. Chicago, IL: Rand McNally, 1967.
- REFERENCE: Stake, Robert. "The Countenance of Educational Evaluation." Teachers College Record. 67 (April 1967): 523-540.
- REFERENCE: Phi Delta Kappa National Study Committee on Evaluation (Daniel L. Stufflebeam et al.). Educational Evaluation and Decision Making. Itasca, IL: F. E. Peacock Publishers, 1971.
- REFERENCE: Tyler, Ralph. Basic Principles of Curriculum and Instruction. Chicago, IL: University of Chicago Press, 1949.
- REFERENCE: Worthen, Blaine R., and Sanders, James R. Educational Evaluation: Theory and Practice. Worthington, OH: Charles A. Jones Publishing Co., 1973.
- A GROUP OF PEERS with whom you could complete the optional discussion question. (The activity can also be completed on an individual basis.)

Learning Experience II

Optional

- REFERENCE: Program Evaluation Skills for Busy Administrators. Portland, OR: Northwest Regional Educational Laboratory, 1977.
- REFERENCE: Morris, Lynn Lyons. Program Evaluation Kit. Beverly Hills, CA: Sage Publications, 1978.
- REFERENCE: Cook, Desmond L. Program Evaluation and Review Technique: Applications in Education. Cooperative Research Monograph No. 17. Washington, DC: U.S. Department of Health, Education, and Welfare, 1966.

Learning Experience III

Optional

- REFERENCE: Morris, Lynn Lyons, and Fitz-Gibbon, Carol Taylor. How to Present an Evaluation Report. Beverly Hills, CA: Sage Publications, 1978.
- REFERENCE: U.S. Department of Health, Education, and Welfare; Office of Education. Preparing Evaluation Reports: A Guide for Authors. Washington, DC: U.S. Government Printing Office, 1970.

Learning Experience IV

Required

- AN ACTUAL ADMINISTRATIVE SITUATION in which, as part of your duties, you can direct program evaluation.
- A RESOURCE PERSON to assess your competency in directing program evaluation.

Selected Terms

Administrator--refers to a member of the secondary or postsecondary administrative team. This generic term, except where otherwise specified, refers to the community college president, vice-president, dean, or director; or to the secondary school principal, director, or superintendent.

Board--refers to the secondary or postsecondary educational governing body. Except where otherwise specified, the term "board" is used to refer to a board of education and/or a board of trustees.

Institution--refers to a secondary or postsecondary educational agency. Except where otherwise specified, this generic term is used to refer synonymously to secondary schools, secondary vocational schools, area vocational schools, community colleges, postsecondary vocational and technical schools, and trade schools.

Resource Person--refers to the professional educator who is directly responsible for guiding and helping you plan and carry out your professional development program.

Teacher/Instructor--these terms are used interchangeably to refer to the person who is teaching or instructing students in a secondary or postsecondary educational institution.

User's Guide

For information that is common to all modules, such as procedures for module use, organization of modules, and definitions of terms, you should refer to the following supporting document:

> Guide to Using Competency-Based Vocational Education Administrator Materials. Columbus, OH: The Center for Vocational Education, The Ohio State University, 1977.

This module addresses task statement numbers 19-22 and 25 from Robert E. Norton et al., The Identification and National Verification of Competencies Important to Secondary and Post-Secondary Administrators of Vocational Education (Columbus, OH: The Center for Vocational Education, The Ohio State University, 1977). The 166 task statements in this document, which were verified as important, form the research base for the National Center's competency-based administrator module development.

Learning Experience I

OVERVIEW

After completing the required reading, demonstrate knowledge of the need for, and important considerations involved in, directing program evaluation.

You will be reading the information sheet, "Program Evaluation: What Is It? Why Do It? How Is It Done?" pp. 11-22.

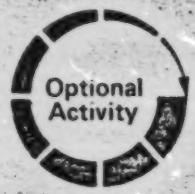
You may wish to read the supplementary reference, Kim, Cost Effectiveness/Benefit Analysis of Post-secondary Vocational Programs.

If at all possible, arrange through your resource person to meet with an experienced administrator and interview this person concerning his/her experiences in directing program evaluation.

You will be demonstrating knowledge of the need for, and important considerations involved in, directing program evaluation by completing the "Self-Check," pp. 23-24.

continued

You will be evaluating your competency by comparing your completed "Self-Check" with the "Model Answers," pp. 25-26.



You may wish to review selected readings describing existing evaluation models and to respond to a related discussion question on a small-group or individual basis.

For information defining what program evaluation is, why it is important, and, in general, how it is done, read the following information sheet.

PROGRAM EVALUATION: WHAT IS IT? WHY DO IT? HOW IS IT DONE?

Evaluation Defined

The evaluation of vocational education programs has been important since the beginning of vocational education. However, its importance has been amplified with changing financial and economic conditions and with more prescriptive legislation than ever before experienced. With these changes in the import of evaluation have also come changing meanings and connotations for the term. Evaluation to some has been thought of as student assessment, and to others, faculty assessment. To still others, evaluation has brought forth the thought of accreditation through regulatory visitations to schools and programs. A broad and workable definition of evaluation is as follows:

> Evaluation is the collection of information and judgments from a wide variety of sources to facilitate planning, to aid in the improvement of programs, and to meet accountability demands.

This definition provides an umbrella under which many data- or information-gathering activities can be placed, and emphasizes evaluation as a positive, constructive activity.

Purposes of Evaluation

There are many reasons for evaluating vocational programs. These vary from meeting external demands to providing information useful to the continuation, enhancement, and improvement of the offerings to students. The following discussion elaborates some of the purposes of vocational program evaluation and answers the question, "Why evaluate vocational programs?"

To improve programs. Of key importance in the definition previously presented is the improvement of programs. This is probably the most important purpose that evaluation can fulfill. The collection of evaluative information and its use in making programs better are much like the quality control and quality assurance functions in business and industry. Evaluation can help to ensure that instruction is relevant and current, and that planning decisions about program improvement are based upon the best available facts and figures.

To assist in making and justifying decisions. Decisions that are based upon intuition alone often lead to undesirable outcomes, either through actions taken or political consequences. Rational decisions, based upon evaluative information, are defensible and justifiable to program staff, institutional administrators, and supporters of the vocational program. Evaluation can provide information that assists in making decisions about such matters as assignment of personnel, selection of students, program changes, budget allocations, and others.

To meet accountability demands. Evaluation can provide evidence to indicate whether the outcomes of a program are worth the investment. This requires more than a financial summary or audit. It necessitates the presentation of program results (e.g., placement results, achievement scores) in relation to cost information. The audience for accountability reports is usually made up of the supporters or overseers of the program. It might include administrators, boards of control, advisory committees, and other community leaders.

To promote or publicize vocational programs. Another purpose for evaluating vocational programs relates to the need to promote programs and keep various constituency groups informed. Similar to accountability reports, public relations reports can communicate evaluation results to the community, faculty, and students. These reports should not gloss over weaknesses; rather, the communication of balanced information can provide a valuable vehicle for gaining and maintaining support for a program as well as for recruiting students. By making people aware of the successes achieved by vocational programs, as well as the shortcomings that the institution is working to overcome, reports of evaluations can help maintain the credibility and advance the image of vocational education.

To meet state and federal mandates. Mandates are legal requirements stemming from education legislation, federal and state regulations, and government agency guidelines. Meeting state and federal mandates is often perceived to be of minor importance or utility to local school personnel; in fact, mandates are sometimes perceived as a nuisance. However, they are important to state and national policymaking and accountability, and often can lead to bona fide improvements useful at the local level. The Education Amendments of 1976 mandate that state boards of education must evaluate all vocational programs once every five years. Many states have passed this responsibility on to local education agencies (LEAs). The passage of legislation concerning such issues as sex fairness and the education of the handicapped has increased the demands on educational agencies to document their efforts in these areas with hard data.

Shortcomings of Traditional Evaluation Attempts

There are many reasons why evaluation has not been used to its fullest potential in meeting one or more of the purposes elaborated in the previous section. It is important to present some of these reasons so that current-day evaluators can design evaluation activities and systems that avoid or overcome these pitfalls or undesirable effects.

Evaluation has been misused. Evaluation results have seldom been used formatively--to make changes and improvements in programs. Often, evaluation has been used to show what or who was in error, without providing paths for future improvement. Follow-up reports, reports of student achievement, and faculty evaluation results are not always used for developing plans for improvement or change. Additionally, accreditation and state-directed evaluation reports are, at times, viewed as the end of an effort rather than the beginning of improvement planning. It must also be admitted that sometimes evaluation has set out to prove that a project or program was successful--whatever the data.

Evaluation has been mandate-oriented. Mandates for evaluating vocational education programs, as mentioned in the previous section, exist at numerous levels. When evaluation is done simply to meet mandates, it is sometimes done in the easiest and most expeditious way, with little concern for its use in meeting other purposes. The student follow-up reporting demands placed upon states have sometimes been met without concern for using the information internally, or for collecting other information at the same time that might be useful to states and local education agencies.

Evaluation has been threatening. Much evaluation has focused on finding the skeleton in the closet or identifying the persons who aren't pulling their share of the load. This punitive focus has caused people to become fearful and anxious about any form of evaluation. Even when evaluation has a positive improvement purpose, this fear can still present an obstacle to success unless given proper attention.

Evaluation has lacked commitment. Evaluation in vocational education has not always received the amount of financial and personnel resources commitment needed to optimize its impact. When compared to the investments made in quality control within manufacturing and service industries, educational institutions have only begun to make adequate investments in the evaluation of vocational progress--too often it has had only token support.

Evaluation competency has been missing. One obvious reason that evaluation has not been used to its fullest potential is

that administrators sometimes lack competency in directing program evaluations. They often have not possessed the knowledge or skills needed to design evaluation activities properly, nor have they been able to implement effectively those designs provided by others. This module has been developed primarily to help you develop these important competencies.

Involvement of Significant Groups

The evaluation of vocational programs, to be successful and efficient, must involve representatives from numerous groups. Their involvement helps to ensure that the evaluation effort has credibility for various concerned audiences, that important expertise is included, and that the evaluation results are used once obtained. Groups and their representatives might play different roles within the evaluation structure. However, each role is important in helping to achieve one or more of the evaluation purposes outlined previously.

Instructors/Teachers. Instructors should be involved in judging the effectiveness of their own activities as well as those of others. Instructors--whether teaching in vocational education, general education, or other areas--are more knowledgeable about program and course specifications than any other group. Therefore, they should play a key role in deciding what is to be evaluated and how evaluation will be conducted. Of equal importance, instructors are typically in the best position to make course and program changes. This necessitates their involvement in the evaluation if it is ultimately to result in real change.

Advisory committee/council. Advisory committee/council members have made a commitment to vocational education. These individuals have expertise, usually subject-matter specific, that can prove invaluable in the analysis of specific programs and courses. Additionally, advisory committee/council members are in a good position to obtain the cooperation of other community personnel in conducting evaluation activities such as employer follow-up studies, community surveys, or employment demand studies.

Administrators. You as an administrator, as well as administrators at all other levels, must be involved in evaluation efforts. Even if you are not responsible for initiating evaluation activities, your support and sanction is usually important to the implementation of the evaluation effort. In addition, you can act as an advisor to the evaluation process, a liaison with other groups or agencies, and a monitor of progress. Administrators at all levels will play a key role in using the evaluation

results; therefore, it is important that they be committed and involved.

Support personnel. Other personnel such as counselors and placement personnel often have potential for contributing to an evaluation. In addition to having evaluative opinions, these individuals will many times have expertise and information that is necessary to the process of evaluation. For example, counselors or placement personnel are usually in an excellent position to assist in or direct a student follow-up survey.

Students. For many evaluation activities, students are the most knowledgeable concerning actual course and program operations. Students have more contact time with instructors and some support personnel than any other group mentioned. Therefore, their input is critical to an evaluation. Also, students can be involved in the preparation or revision of evaluation instruments such as follow-up questionnaires. For example, having students react to a follow-up questionnaire during its development may alleviate language and interpretation problems that future respondents might have with the questionnaire.

Community organizations. Some organizations you may wish to involve in the evaluation are labor unions, industry councils, professional associations, parent groups, and chambers of commerce. Also, public agencies such as CETA, employment service/security commissions, rehabilitation services, and the Veterans Administration can be useful in providing information from their perspective about crucial parts of the environment of vocational education. That is, they represent sources of support and are "users" of the "products" of the institution.

External evaluators. In addition to representatives from the previously mentioned groups, it is often beneficial, although costly, to involve evaluation experts from private consulting firms, universities, or other agencies. External evaluation personnel can play several roles. First, they can be used to assist in the design and implementation of an internal evaluation system, beginning with the identification of evaluation needs on through the use of evaluation results. A second role involves using an external person as a director of an external evaluation. For example, many special and innovative activities funded by state and federal agencies require that a neutral third-party evaluator be contracted. A third-party evaluator is one who is external to the the funding agency and the institution (first and second parties). The external evaluator, in this role, conducts the evaluation and reports to both parties. (See sample 1 for specific suggestions on how to secure an outside evaluator.)

External evaluators who may assist you in facility evaluation at no cost include persons from the Environmental

SAMPLE 1

SUGGESTIONS FOR SECURING A THIRD-PARTY EVALUATION CONSULTANT

1. Specify evaluation purpose and scope.

2. Determine financial resources available for the evaluation.

3. Prepare a summary of needed assistance (may be a Request for Proposal [RFP]).

4. Identify potential evaluators or evaluation consultants.

5. Distribute work statement or summary of needed assistance to potential evaluators.

6. Review prospecti or proposals submitted by evaluators.

7. Select the two or three best proposals.

8. Meet with the top two or three to discuss their offers and to review examples of their previous work.

9. Contact former agencies that have employed the evaluators.

10. Select the best one.

11. Prepare an agreement or contract to finalize details.

Protection Agency (EPA) or the Occupational Safety and Health Administration (OSHA), fire marshals, boiler inspectors, and others concerned with safety.

Focus of Evaluation

The previous sections of this information sheet have mentioned a number of focuses for evaluation such as faculty performance, student performance, and others. This section will specify additional focal points that may be appropriate in the evaluation of vocational programs.

The Education Amendments of 1976 (Title II) highlight four areas of evaluation that must be addressed by state boards of education in their evaluation of vocational programs. These include (1) planning and operational processes involving facilities, equipment, services, and curriculum, (2) results of student achievement as measured by competency tests, (3) results of student employment success (placement and wages), and (4) other results as measured by services to special populations.

Additional focal points to consider in evaluating vocational programs can be identified through the review of standards or criteria used by accreditation agencies and state education agencies. For example, one state has conducted extensive research to identify the important components of a successful total program of vocational education. These components are (1) program management, (2) planning and evaluation, (3) community resources, (4) program content, (5) personnel, and (6) student services. The evaluation of a total vocational program might focus on all of these components.

If an evaluation is to be more specific, focusing on a single course or program, it might consider the following points: (1) students served, (2) goals and objectives, (3) organization, (4) personnel, (5) content, (6) teaching methods, (7) learning achievement, and (8) supplies, facilities, and equipment. Obviously, the focus of the evaluation will depend upon the purpose, scope, and term of program. Equally important, the evaluation purpose and scope will dictate the program elements that are to be analyzed or evaluated.

Evaluation Techniques or Processes

There are many techniques or activities that can be used to obtain evaluative information, formulate judgments, and assist in improving programs. A detailed description of each potential technique is beyond the scope of this module. However, a brief

description is provided, and you are referred to the list of references in sample 2 for additional information.

Student follow-up survey. This activity is designed to help staff gather data concerning the instructional programs and services from former students. Additionally, the student follow-up can help to determine the effectiveness of programs in terms of job placement--a product evaluation measure. A mailed questionnaire, telephone interview, or personal interview can be used to obtain opinions, ratings, and suggestions from former students. The method should be chosen based on the number of students to be surveyed, their geographical dispersion, and the funds and number of personnel available. Be particularly wary of the notoriously low rate of response often resulting from mail-back questionnaires. The survey should be based upon the need for specific program improvement information that will aid in answering broad key questions formulated by staff. It should be planned and coordinated by a team of individuals who represent various groups on the staff. This activity can focus on the total institution, its vocational program, or individual programs or courses.[1]

Employer follow-up survey. This activity is designed to aid in assessing the on-the-job performance of former students. It involves contacting employers to obtain their ratings and comments on the performance of former students. The employer survey can be conducted using a mailed instrument, a telephone interview, or personal interview. Regardless of the method chosen, the information gathered should answer prespecified key questions that are formulated by staff. A local leader and a team of staff and advisory committee members should plan and coordinate the survey. This activity can focus on the total institution, a vocational service area, or individual programs or courses.

Student interest survey. This activity is designed to facilitate the collection and use of student career interest information. This may involve the use of standardized interest inventories or locally developed instruments. Interest information is used in two ways: (1) to aid in student career planning, and (2) to aid in curriculum and program planning. Teachers, counselors, curriculum specialists, and students should be involved in this activity. The activity may be conducted for the total student body or certain instructional levels, or individual instructors may choose to use it independently within their classes.

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1. For additional information on follow-up surveys, you may wish to refer to Establish a Student Placement Service and Coordinate Follow-Up Studies, a Competency-Based Vocational Education Administrator Module (Columbus, OH: The Center for Vocational Education, The Ohio State University, 1977).

SAMPLE 2

RECOMMENDED SOURCES FOR EVALUATION INFORMATION, TECHNIQUES, AND INSTRUMENTS

Albright, L.; Evans, R.; and Fabac, J. An Identification and Assessment System for Special Needs Learners. Guide No. 8: "Student Follow-up." Guide No. 9: "Employer Survey." Urbana, IL: University of Illinois, 1978.

Ash, L. C. Instruments and Procedures for the Evaluation of Vocational/Technical Education. Washington, DC: American Vocational Association, 1972.

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Evaluation of instructional materials. This activity, focusing on the evaluation of the LEA's collection of instructional materials, may include three phases that are designed to improve the collection and use of materials. These phases are (1) the inventory of all instructional materials that are owned by the institution, (2) an assessment of the adequacy of the materials, and (3) the utilization of the results of phases one and two to increase the use of materials and also to aid in the selection of new materials. A combination of methods--including the survey, staff rating of materials, and student rating of materials--is possible. A local leader (possibly a media director or librarian) should be appointed to direct a team of instructional and support personnel in this effort. The activity is designed primarily for assessing the institution's entire collection of instructional materials, although it can be adapted to focus on certain segments of the collection, such as the audiovisual media available.

Team evaluation. This activity involves the use of a team of educators; business, industrial, and labor representatives; and former students to analyze the total vocational program or its various components. This review process involves two teams of individuals: one to plan the activity and prepare materials, and the second to actually conduct the review. The review team observes, interviews, and studies available information in an attempt to formulate conclusions about the program and to suggest ways of improving identified deficiencies. The purpose of the review team is to provide consultant assistance that includes suggestions for improvement. This activity can be applied to the total institution, a vocational service area, or individual programs and courses.

Student testing. This activity, in which all instructors are already involved, stresses the use of student test data in a program evaluation. The activity involves the development of instruments and measurement techniques to assess the achievement of various forms of student performance objectives within the cognitive, affective, and psychomotor domains. It also involves the preparation of individual and group profile forms that can be helpful in using the results. Instructors should assume the primary responsibility for completing this activity, and cooperation among instructors who teach the same courses or subjects should be encouraged. The activity can be done by all instructors, or individual instructors can use it independently.

Evaluation of community resources. This activity is designed to aid in the evaluation of the availability and effectiveness of community resources such as prospective advisory committee members, guest speakers, and field trips. The activity has two parts. Part one focuses on the identification of available resources through the use of a mailed questionnaire or a

telephone survey. The result of part one is the establishment of a resource file or catalog. Part two focuses on the rating of the effectiveness of these resources by students and staff through the use of a printed questionnaire or rating scale. The results of part two can be incorporated into the resource file and used to improve the selection of outstanding resources. A team of individuals--consisting of administrative staff, instructors, and advisory committee members--should coordinate the activity. If possible, this activity should be applied to the total LEA; however, it can be applied to any instructional component of the institution.

Student evaluation of instruction. This activity is designed to aid staff in obtaining information from current students to facilitate the improvement of classroom instruction. A team of staff generally develops a questionnaire or rating form to be administered to currently enrolled students to determine instructional effectiveness. The questionnaire results are then summarized, and each instructor (with support from others) prepares a report that includes suggestions for improving the instructional process. This activity can be conducted for the total institution, vocational program, individual programs, or individual courses. Emphasis is placed on the use of results by individual instructors.

Evaluation of facilities and equipment. This activity is designed to help in analyzing the adequacy of existing facilities/equipment for the purpose of determining future needs for expansion, renovation, or abandonment. Additionally, this activity can help in increasing the use and improving the safety of facilities. This activity involves the inventory of facilities and the observation and rating of facility characteristics by both advisory committee members and staff members. A local leader and a team of internal staff should plan and coordinate the evaluation and should prepare a report with recommendations. This activity can be applied to the entire institution, the vocational program, or individual programs and courses.

Cost/Outcome analysis. This activity is designed to aid personnel in collecting information regarding costs and relating it to information about outcomes. The activity can focus on the cost/outcome relationship of (1) a program, (2) a course, (3) a unit of instruction, and (4) a type of media. The results of the activity can assist in making decisions about instructional alternatives and can help increase the efficiency of instruction. One part of the activity involves the collection of cost information from instructional staff members and existing records. Outcome information is gained from existing measures, e.g., test scores, follow-up results, other ongoing evaluation activities, and special data-collection procedures. This activity can be

applied to the total institution, the vocational program, occupational specialties, individual courses, or more specific components.

For more information on the cost-effectiveness/benefit analysis model, you may wish to read Kim, Cost Effectiveness/Benefit Analysis of Postsecondary Vocational Programs. This document provides an overview of the model and a manual of the specific activities needed to conduct an evaluation in this area.

It is strongly recommended that you arrange through your resource person to meet with and interview an administrator with successful experience in directing program evaluation. Before the interview takes place, you should prepare a list of questions you wish to have answered, e.g.:

- How directly is he/she involved in each step of the evaluation process?
- What problems has he/she encountered and how can they be avoided or solved?
- What techniques does he/she find to be most effective?

The following items check your comprehension of the material in the information sheet, "Program Evaluation: What Is It? Why Do It? How Is It Done?" pp. 11-22. Each of the items requires a short essay-type response. Please respond fully, but briefly, to each item.

SELF-CHECK

1. The definition of evaluation provided in the information sheet indicates that the information and judgments required need to be collected from a wide variety of sources. Why is this essential?

2. If an administrator directs an exemplary program evaluation effort, resulting in a sound evaluation report, is his/her duty fulfilled? Why or why not?

3. How involved should administrators be in the total evaluation process?

4. How important is the involvement of others (instructors/ teachers, advisory committee/council members, students, other administrators, support personnel, etc.) to the success of the evaluation effort?

5. Considering all of the evaluation techniques discussed in the information sheet, which technique is the best?

Compare your written responses on the "Self-Check" with the "Model Answers" given below. Your answers need not exactly duplicate the model responses; however, you should have covered the same major points.

MODEL ANSWERS

1. It is crucial that data be gathered from a wide variety of sources in order to ensure valid, usable results. For example, assume you surveyed only former secondary students, and your results showed that (1) few students were employed in related fields, and (2) most felt they had been poorly prepared. With only this data from this one source, you cannot be 100 percent sure that this is the case. Community survey data or follow-up data from employers may indicate that poor preparation per se is not the problem. Rather, it may be that there have been few job openings in the area (or even cutbacks), or employers may have been hiring postsecondary graduates because of their more advanced training. Collecting information and data from a variety of sources allows you to compare responses and be more secure in your final interpretations.

2. The preparation of the final evaluation report is not the end; it is the beginning of a new cycle in the evaluation process. Although the report does serve the purpose of documenting program accountability, if that is all it does, then the effort was largely wasted. For evaluation to be worth the time and resources involved, the results need to be used: to improve programs and to assist in making and justifying program decisions.

3. The extent to which administrators are involved in the total evaluation process will vary depending on their exact administrative role and the size of the total administrative staff. A principal in a small, rural school may have total responsibility for performing each task in the process. A vocational director in a large, suburban district may delegate much of the responsibility to evaluation specialists on the staff. The point is that program evaluation is a key to program success; therefore, whether you develop your own evaluation plan or assign the task to others, you, as an administrator at whatever level, have to take an active interest in the process. You must ensure that you are kept abreast of evaluation activities on a continual basis. Moreover, delegation does not mean the end of responsibility. As

a decision maker, you must monitor the process and make yourself available for assisting those to whom you have assigned direct responsibility.

4. Involving others in the evaluation process is essential to the success of the evaluation efforts. No matter how excellent the administrative staff is, its view is somewhat limited. To design appropriate questionnaires for use with employers, input from advisory committee members and instructors is invaluable. To identify potential problem areas that should be focused on in the evaluation, instructors and students must be involved. Involvement of these various groups can improve the planning efforts and usability of results greatly. More pragmatically, these persons are a potential source of needed workers during data-collection activities. Further, involving interested, concerned parties throughout the evaluation process improves the chances that recommendations resulting from the evaluation will be accepted and implemented. Finally, those involved in evaluation often become more personally interested in the institution or program--"buying into it," so to speak.

5. There is no one best evaluation technique. In undertaking an evaluation effort, the "best" techniques are the ones that best match such factors as your evaluation needs, the extent of your evaluation effort, the size of your sample, the resources you have available, and the questions you wish to have answered. First, one makes decisions about all these elements; then, one selects the most appropriate technique(s) accordingly.

Level of Performance: Your completed "Self-Check" should have covered the same major points as the model responses. If you missed some points or have questions about any other points you made, review the material in the information sheet, "Program Evaluation: What Is It? Why Do It? How Is It Done?" pp. 11-22, or check with your resource person if necessary.

If you wish to gain a greater understanding of the theoretical constructs underlying educational evaluation, it is strongly recommended that you complete the following activity. The activity requires that some basic reading covering differing theories and points of view be done, and that this reading be used to address a discussion question that is provided concerning evaluation. The purpose of this activity is not only to familiarize you with the existing evaluation models, but also to help you to develop your own rational stance toward evaluation--one that incorporates the best from all that exists and resolves conflicting views.

The activity can be structured in a variety of ways. If you are completing this module at the same time as peers (e.g., as part of a university course), you could complete this activity as a group. For example, you could each study one model or point of view and then address the discussion question through debate. Or, you could each complete all the readings and address the discussion question in a seminar session. If peers are not available to you, you could complete the reading and respond to the discussion question in writing. Your resource person could be asked to attend any debates or seminars, or to review and discuss with you the adequacy of your written response.

Reading:

Using the references listed below (and cited on p. 6), others listed on the inside back cover, and others you can locate on your own, become familiar with at least four evaluation models:[2]

1. Goal-Attainment Models
   Tyler, Metfessel, Michael, and Hammond
   (see Tyler and Provus references)
2. Judgmental Models Emphasizing Extrinsic Criteria
   Scriven's formative/summative evaluation
   Stake's Countenance Model
   (see Scriven and Stake references)

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2. Delineation of four models and related references were drawn from Basic Concepts in Vocational Education, Module 13 in the Vocational Education Curriculum Specialist (VECS) Series (Palo Alto, CA: American Institutes for Research, 1976), pp. 23-28.

3. Judgmental Models Emphasizing Intrinsic Criteria
   Accreditation Model
   (see Worthen and Sanders reference)

4. Decision-Facilitation Models
   Alkin's CSE Model
   Provus' Discrepancy Model
   Stufflebeam's CIPP Model
   (see Alkin et al., Provus, and Stufflebeam et al. references)

In addition, become familiar with the points of view offered by humanists James Macdonald and Arthur Combs, critics of the recent emphasis on educational evaluation (see Macdonald, Combs, and Stufflebeam references).

Discussion Question:

In order for evaluation to be truly objective, valid, and reliable, it must be systematized and quantifiable. The evaluation models are an attempt to provide such systems. Yet, critics point out that they see flaws in each system. Measuring success by identifying goals and then assessing the degree to which those goals are attained makes sense only if the right goals have been identified--not an easy task. The Accreditation Model considers the adequacy of in-place resources (facilities, staff, instructional materials, and equipment), but largely ignores the worth of what is taught. Use of isolated evaluation specialists can separate the collection and presentation of data from the reality of educational goals and decision making, thus potentially limiting the usefulness of the data. Complicating this is the idea that when one evaluates the success of a newly installed innovation, one assesses it on its own terms (i.e., Did it do what it was supposed to do? Is it still in place and operating as planned?) Yet, this ignores the fact that adaptation is often a part of the assimilation process and that--although the innovation may seem to disappear after two years--a teacher or program may operate quite differently as a result of exposure to that innovation.

Given this framework, respond to the following five discussion questions:

1. What, briefly, are the steps and premises defining each of the four models?
2. What do you see as the strengths and weaknesses of each model?
3. Are the criticisms offered by Macdonald and Combs valid? Why or why not?

4. What evaluation model (an existing one, an adaptation of one or more existing models, your own model) would you use to ensure that the right questions are asked concerning the right goals and that the data is both potentially useful and actually used?

5. What do you perceive to be the role of vocational administrators in the evaluation process? How extensively should they be involved? How can they ensure continuity?

Learning Experience II

OVERVIEW

After completing the required reading, develop two evaluation plans based on the information provided in given case situations.

You will be reading the information sheet, "Developing and Preparing to Implement an Evaluation Plan," pp. 33-47.

You may wish to read one or more of the supplementary references, Program Evaluation Skills for Busy Administrators; Morris, Program Evaluation Kit; and/or Cook, Program Evaluation and Review Technique.

You will be developing two evaluation plans based on the hypothetical situations described in the "Case Situations," pp. 49-50.

You will be evaluating your competency in developing evaluation plans by comparing your completed plans with the "Model Plans," pp. 51-53.

For information describing the steps involved in developing an evaluation plan and preparing to implement that plan, read the following information sheet.

DEVELOPING AND PREPARING TO IMPLEMENT AN EVALUATION PLAN

Establish a Team for Planning and Coordinating the Evaluation Effort

The first task addresses one of the necessary features of effective evaluation systems--involvement. A team of individuals should be selected to aid in the design, implementation, and use of the program evaluation system. If you as administrator are directing the total evaluation effort, the selection of such a team is your responsibility. The team will vary in both composition and size with the focus and scope of the evaluation. However, it is generally advantageous to involve a cross section of individuals who will be affected by the evaluation, or contacted during the conduct of its activities. It is also good to involve individuals who will contribute willingly and who are highly respected by others. Involvement of the right people in the planning phase can enhance the design and acceptance of the evaluation effort.

In selecting a planning and coordinating team, a necessary first step is to determine the desired representation. The groups that might be included are administrative personnel, instructional personnel, learners, ancillary personnel, advisory committee members, and external experts. Common sense should be used in deciding on representation. Factors to be considered should include the focus of the evaluation, the scope of the evaluation, and the resources available to conduct the evaluation. Thus, a team with the task of designing an evaluation system for programs in a multiattendance secondary vocational center might have the following composition:

1 Vocational dean or director

2 Principals (one from each of two feeder schools)

2 Department chairpersons

4 Teachers (3 vocational, 1 general)

1 Director of institutional research

1 Counselor or placement director

1 Chairperson of the vocational advisory council

1 Employer of program graduates

2 Students (1 current, 1 former)

A smaller institution might not have such a large team. Instead, a team might include the following:

1 Vocational director or principal

3 Teachers (2 vocational, 1 general)

1 Counselor or placement director

1 Advisory committee member

1 Employer of program graduates

2 Students (1 current, 1 former)

If an individual department or program is the focal point of the proposed evaluation, of course, the team will be much more limited.

A second step in establishing a team to plan and coordinate the evaluation is to select and invite individuals to comprise the team according to the composition that has been determined. In this step, you may wish to use your own knowledge of people, ask other administrators to suggest individuals, or solicit volunteers. The local situation will dictate your method of selection. Once they accept your invitation to serve, members should be officially appointed by letter, by board resolution, or both.

Schedule and Hold a Meeting of the Planning Team

Following the establishment of the planning and coordinating team, it is important that you promptly schedule a meeting for the purpose of initiating work on the actual design of the evaluation system. One of the first tasks is to identify the optimum time for such a meeting to ensure good attendance.

Once the team is assembled, considerable effort should be made to orient this group to their task, as well as to explain why they were selected and your expectations for them in their role as planning and coordinating team members. Many times in an orientation meeting of this type, it is advantageous to have a high-ranking official or administrator deliver a statement to the team to set the pace. This can help all involved to develop a commitment to the evaluation.

The planning and coordinating team should be informed that their overall responsibility is (1) to develop or adapt a system for evaluation that is designed to meet the needs of the particular program or institution, and then (2) to prepare a plan of

action for implementing the proposed evaluation system. It should be stressed that this general responsibility will be shared by all and that, where possible, staff support and technical assistance will be provided.

It may also be necessary during this initial meeting to discuss some of the evaluation practices that have previously been used by the institution. This may aid the group in identifying some of the strengths or weaknesses that past evaluations had and can set the stage for how future evaluation activities might evolve. In addition, it is important that early in the planning process the team consider statewide program standards and evaluation procedures that might apply. Information about standards and procedures is available from the state division or department of vocational education. You need to be sure that you collect the data that are required and report them in a form usable by the state department for its own information-gathering purposes and for comparing local data with that obtained from other institutions.

The last major task of the initiation meeting is to outline the specific activities or tasks in which the planning and coordinating team will be involved. The remaining tasks in planning an evaluation system include the following:

- Developing and formalizing a purpose and scope statement for the evaluation system
- Developing key evaluation questions
- Selecting appropriate evaluation activities
- Identifying leaders for each activity (frequently, you as administrator may serve as evaluation leader)
- Sequencing evaluation activities
- Presenting the evaluation components in the form of a written evaluation plan

Each of these tasks can be accomplished through meetings, discussions, and independent work. Your involvement in the completion of these tasks may vary from direct involvement to delegation of the responsibility to others on your administrative or teaching staff. Regardless, since the entire evaluation effort hinges on decisions and plans made at this point, you cannot afford to become too removed from the planning process. You will probably want to make substantial input into the development of the purpose and scope statement, the choice of key questions, and the selection of leaders. But even if instrument selection and the writing of the evaluation plan are assigned to others, you must conscientiously monitor their progress and carefully review their results so a solid plan is developed.

Develop and Formalize a Purpose and Scope Statement for the Evaluation System

The first substantive activity in the design of an evaluation system involves determining and stating the purpose and scope of the planned evaluation system. The purpose for program evaluation may already have been determined by internal staff or by some administrative agency, or it may grow out of a need to make certain planning or management decisions. However, there is a need to involve the planning team in formalizing the purpose and stating it in writing. The purpose should succinctly state why program evaluation is being undertaken. This kind of statement, of course, can help in communicating the purpose to others and can aid in alleviating any anxiety or threat that might be posed by the word evaluation.

Simultaneous or integral to the development of a purpose statement is the determination of scope or breadth for the evaluation effort. The scope statement, in essence, states what will be included in the evaluation. You may wish to have separate purpose and scope statements, or it is possible--often advantageous--to include both in one statement.

Experience has shown that the evaluation leader (who may be you or someone you have designated) should first draft one or more statements of purpose and then request that team members react to and revise this draft. Using this approach can save time in accomplishing this task.

The purpose statement in itself is very important to the total direction of the evaluation effort. Therefore, it is necessary to give considerable thought and attention to its preparation. Sample 3 presents several examples of purpose statements for program evaluation systems. It should be noted, however, that these are just examples; the purpose statements for all evaluation systems will vary from program to program or institution to institution.

The scope statement for the evaluation system is easier to develop than the purpose statement. The scope statement merely indicates which part of the educational or training agency will be involved in the evaluation, e.g., total institution, vocational program, a single occupational specialty, or an individual course. The following is an example of a scope statement:

> The evaluation will focus on the Associate of Arts program in dental hygiene.

By combining and reviewing the purpose and scope statements, the general thrust for the evaluation effort can be determined.

SAMPLE 3

PROGRAM EVALUATION SYSTEM STATEMENTS OF PURPOSE

- To determine whether stated goals or objectives have been met.
- To determine what aspects of our total occupational program need improvement.
- To determine needed curriculum content revisions.
- To determine how well orientation courses prepare students for training-level courses.
- To learn what impressions occupational program graduates have concerning the program that they completed.
- To determine staff inservice needed for program improvement.
- To improve the decision-making process used in planning occupational programs.
- To assess occupational supply-and-demand information in light of needed program additions and deletions.
- To provide sufficient data to aid the instructional and administrative staff, as well as the board, in their decision-making functions.
- To gather sufficient data to inform the public of outcomes resulting from educational expenditures.
- To aid in identifying areas that need expansion or removal within our occupational offerings.
- To determine what aspects of our program need the greatest allocation of resources for improvement.
- To broaden occupational offerings according to student needs.

Develop Key Evaluation Questions for the System

Evaluation questions are broad questions that narrow the focus of the evaluation system from the purpose and scope statements down to the individual parts or segments of the component being evaluated. Evaluation questions take the purpose statement and make it specific. Evaluation questions reflect what is important to know as a result of an evaluation, i.e., the questions you expect to have answered by the evaluation.

Activities, information sources, and instruments should be selected only if they help answer the evaluation questions. This places great emphasis on the need for care and attention to the development of evaluation questions.

Program improvement needs may be the most valuable source for identifying key questions. General concerns or feelings of the staff may reveal some of these, but other sources should also be considered. State or administrative evaluation reports and regional accreditation findings can provide indications of program components that may need further analysis or evaluation.

The following is an outline for you or another designated evaluation leader to follow in helping the planning and coordinating team formulate evaluation questions. These steps may be altered to fit the needs of individual agencies.

1. Build and present a rationale for having key questions.
   a. To focus the evaluation
   b. To aid in selecting evaluation activities
   c. To aid in developing instruments
   d. To aid in using evaluation results
2. Present possible sources of key questions.
   a. Previous evaluation reports (accreditation, state visits, third-party)
   b. Concerns of staff
   c. Planning decisions and needs
3. Secure sample lists of key questions (from this module or from other institutions) and distribute to the team. (See sample 4 for some examples.)
4. Duplicate or obtain multiple copies of previous on-site evaluation reports (accreditation, state, etc.) or other informational documents that might help in identifying key questions.
5. It may be advantageous if you, the evaluation leader, highlight some of your priority concerns from any of the three points listed under item 2. This may give the planning team a starting point.

SAMPLE 4

SOME KEY EVALUATION QUESTIONS

- Do students enrolled in our vocational programs learn the basic cognitive skills of speaking, reading, writing, and numerical calculation as effectively as comparable students in academic/general curricula?
- Do our vocational education programs provide graduates with a general set of skills and basic work disciplines that significantly increase their chances for successful employment?
- How do the annual earnings of our vocational graduates compare with those of general/academic graduates, both in the short term and in the long run?
- Do our vocational programs significantly strengthen the human resource base of the local and state economy?
- Does favorable community reaction to ongoing vocational programs result in general expressions of satisfaction and financial support?
- Are the vocational students developing leadership ability through their participation in occupationally related youth programs such as DECA, FHA, FFA, and VICA?
- Do our vocational programs increase occupational awareness, training opportunities, and job access for men and women in both traditional and nontraditional areas?
- Do our vocational education program admissions and student assignment practices tend to reduce or to reinforce occupational discrimination on the basis of race, class, or sex?

SOURCE: Adapted from Robert L. Darcy, Vocational Education Outcomes: Perspective for Evaluation (Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1979), pp. 15-19.

6. Depending on the size of the planning team, as a group or as divided subgroups, write some potential key questions (keeping in mind the overall purpose and scope statement). You may wish to explain this task at one meeting and then ask the team members to bring some questions to the next meeting.

7. Later in the meeting or at the next meeting of the team, review several questions and begin discussing each one.

8. You will probably have more questions than you can feasibly answer within the resource limits for evaluation. Initially, it is better to have a long list of questions, some of which you can give priority to later. Don't be afraid to adapt questions from the examples provided, but don't rely on them entirely. Remember, the evaluation system that you are designing should meet your specific needs.

9. Duplicate the list of key questions developed by the team. If the list is long, obtain team reaction about priority questions.

10. Prepare final list of key evaluation questions.

Select Appropriate Evaluation Activities

Based upon the selected evaluation questions, it is necessary to determine (1) what data already exist that can be tapped, and (2) what additional evaluation techniques or activities can assist in providing answers. As shown in sample 5, these include interviews, questionnaires, document review, testing, and observation. (Information on more specific techniques is included in Learning Experience I, pp. 17-22.) It is helpful to use the staff's past experience with certain evaluation activities as a source of input in selecting activities. Another alternative is to use the services of an evaluation expert or consultant to assist in the selection of evaluation activities.

In selecting activities (e.g., employer survey), it is essential that those in charge of this process (you, other staff, or outside evaluators) be thoroughly familiar with the nature of each activity, what it is designed to do, what it involves, and when it should be used. Based upon a knowledge of the capabilities of each activity, the focus for each evaluation activity should be redefined. Familiarity with each activity may lead to either a broadening of the focus of the evaluation questions or the specification of further questions. In some cases, the activity will provide information in much greater detail than originally anticipated, and thus, refocusing the evaluation will lead to a more efficient plan.

SAMPLE 5

DATA-COLLECTION TECHNIQUES

INTERVIEWS:	Interviews can be structured with a form or interview schedule that specifies the questions to be asked of each respondent. Interviews can also be open-ended, with the use of a topical outline that guides the interviewer in knowing what areas should be probed. The interview can be conducted face to face or by telephone.
QUESTIONNAIRES:	Questionnaires are printed forms designed to collect information and judgments from respondents. They can include many different item types, including checklists, graphic rating scales, multiple-choice items, numerical rating scales, matching items, etc. Questionnaires can be administered by mail or distributed personally. In either case, a strong follow-up effort is essential in order to secure an adequate, representative response.
DOCUMENT REVIEW:	Document review involves the analysis of already existing information that may be of secondary use. It can be done informally to estimate general feelings or in a very formal way using checklists or other structured instruments.
TESTING:	The administration of student tests can provide valuable information. Testing can focus on cognitive, affective, and/or psychomotor behaviors. Instruments used in testing can include paper-and-pencil tests, inventories, simulation tests, performance tests, projective tests, and many other devices.
OBSERVATION:	Observation can provide descriptive information regarding the way something is constructed or behaves. Observation can be unstructured, or it can be structured through a special recording form. Observation can be either open, secret, or visually recorded.

Identify Leaders for Each Activity

The members of the planning team or you, as an administrator, usually will not be able to work directly with all aspects of each evaluation activity. Therefore, it is important for you to appoint a person (or several persons) to serve as leaders of each important part of the evaluation process. Some of the same principles that applied to the selection of planning team members will also guide the appointment of these leaders. That is, they should be committed to the goals of evaluation, be familiar with the subject of the evaluation, be able to locate information and resources needed to fulfill their duties, be well versed in evaluation principles, and be respected by others.

Furthermore, these leaders must possess many of the usual administrative skills, such as the ability to organize and complete assignments, work effectively with colleagues, manage time and resources, and express themselves well orally and in writing. In most cases, you will expect the leaders to determine their own methods for accomplishing the activities assigned them by the evaluation planning team; considerable liberty can be allowed them with respect to procedures, but the time sequence and deadlines should be adhered to closely.

Sequence Evaluation Activities

Once evaluation activities have been selected, it is important to develop a calendar or sequence chart for the evaluation system. This calendar should include an indication of the planned initiation and completion dates for each of the selected evaluation activities. In scheduling, it is often valuable to carefully review resources that provide detailed descriptions of how to conduct each of the selected activities. Through review, the major tasks and subtasks of each activity become clear, and time estimates can be made. A review may also make evident which activities might precede others. For example, by conducting a student follow-up study, the names of employers may be solicited from former students. Therefore, the employer survey might most efficiently follow the former student follow-up survey.

Present the Evaluation System in the Form of an Evaluation Plan

After the purpose and scope statement, and evaluation questions are determined, and evaluation activities are selected and scheduled, all of this information should be transferred to a brief evaluation plan form. Sample 6 is an example of an evaluation plan form that includes categories covering the desired information. Once completed, such a plan can be useful in

SAMPLE 6

EVALUATION PLAN FORM

Purpose:

Scope:

Key Evaluation Questions:

Information Sources:

Data-Collection Techniques:

Schedule of Events:

Activities	Leader(s)	Target Dates	
		Begin	End

communicating the outline or structure of the evaluation system to everyone. It also provides a general monitoring schedule for you or another evaluation leader.

You will need to identify those persons or groups (e.g., board, higher-level administrators) whose sanction and approval of the plan are required. Copies of the plan should then be submitted to these persons for approval. The approved evaluation plan should be distributed to all members of the planning and coordinating team, as well as to key individuals in the education or training program under consideration.

Publicity is a factor here, too. It is helpful to arrange for the evaluation plans--once approved--to be announced using local media (newspaper, radio, TV). Community awareness of the need for and purpose of the evaluation effort can help you both when you attempt to secure their cooperation during data collection, and later, when you attempt to make decisions and changes based on the evaluation results.

Prepare to Implement Evaluation Plan

Each activity listed on the final plan can be further broken down into subtasks. For example, if your plan includes conducting a student follow-up survey, the subtasks would probably include the following:

1. Selecting appropriate persons or groups for involvement and assistance (e.g., advisory council/committee, students, teachers, administrators, counselors, board members)
2. Determining the best follow-up procedure to use
3. Stating the objectives of the follow-up study
4. Identifying the former students to be studied
5. Designing cover letters, questionnaires, follow-up letters
6. Designing interview guidelines
7. Developing a schedule of activities with time specifications and assignments
8. Conducting the survey
9. Keeping records of survey progress
10. Summarizing, interpreting, and reporting the findings
11. Implementing approved recommendations

By listing each subtask and then describing it in detail, you can project the necessary resources and determine who should be responsible for or involved in each subtask. For example, as administrator, you might wish to take responsibility yourself for chairing the group development of an evaluation plan. However, you may wish to delegate data collection to evaluation specialists.

Staff assignments should, of course, be made for each of the subtasks. The scope and extensiveness of the evaluation activity will dictate the number of individuals needed. The director of the evaluation should probably assume overall leadership of all subtasks, though with extensive activities it may be advantageous to also identify individual leaders for each of the subtasks (see p. 42). The director can ask for volunteers in situations where no special knowledge is needed or can select individuals when special expertise is required to complete the job.

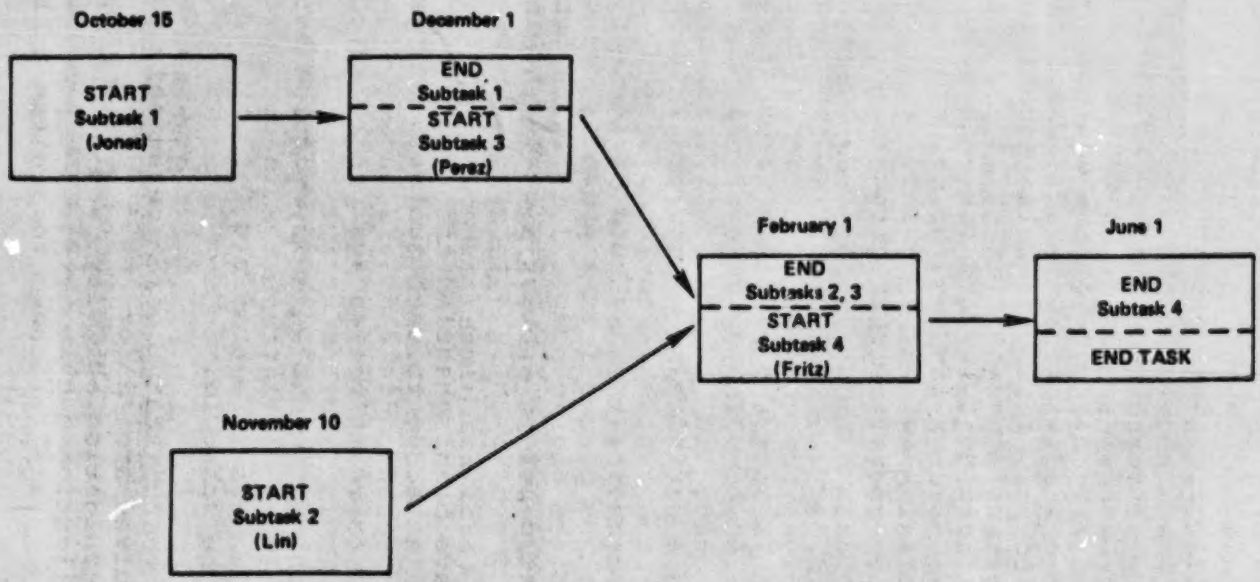
The next step involves the sequencing of individual subtasks in a configuration that is most efficient in terms of resource and time utilization; i.e., developing an evaluation schedule. Many activities can be conducted simultaneously, but others will have to be conducted in a definite sequence. To initiate this sequencing step, all of the subtasks should be listed, and those that are dependent on preceding tasks should be identified. Then, the activities can be placed into a pictorial schedule or PERT-type chart such as the one in sample 7 in which subtask 1, 2, and 3 must be completed before subtask 4 is begun, and work on subtask 2 can be started concurrently with work on subtask 1.

Once activities have been scheduled and sequenced, estimates of time should be attached to each subtask. The example of sequence scheduling presented in sample 7 shows personnel assigned to each of the four activities and projected completion dates for each activity. It is often useful to include the names of those involved. Each of the subtasks may require more than one individual, and the name of at least the leader of the particular activity, or the person responsible for its completion, should be attached to the schedule.

You will need to ensure that program personnel and all others who will be involved are (1) oriented to the purposes and the procedures of the evaluation activity, and (2) monitored throughout the data-collection and summarization processes. It is not enough to merely assign personnel to a given task. These people should clearly understand the thrust of the evaluation so they can make good decisions as the need arises, adequately explain evaluation goals to others, and comprehend the difficulties that might be met by other personnel. If all members are properly informed, they will be in a position to help one

SAMPLE 7

GRAPHIC PORTRAYAL OF EVALUATION ACTIVITY SEQUENCING



another. This is essential to the success of the evaluation itself.

Finally, once the complete evaluation plan has been developed, you will be ready to implement the evaluation program itself. It is not necessary for this module to cover this operation in much detail--you have already come up with a comprehensive plan, so all you need to do is to follow it. You should pay particular attention to the schedule of activities you drew up and the relationships of crucial activities such as those depicted in the form shown in sample 7. By being continually aware of progress in terms of these deadlines, you can detect when additional resources (time, money, staff) might be needed to ensure that key activities are completed as planned.

The planning and coordination team should continue to meet periodically during the implementation phase, primarily to monitor progress and detect and resolve unforeseen problems. You should help team members recognize that the original plan developed was probably not perfect in every respect, so that they can understand the need to modify it in light of changing circumstances. Most of the adjustments are likely to be in the areas of activity schedules or data-collection techniques. In most cases, you will retain the original purposes and key evaluation questions that guided your planning. Assuming that your planning was comprehensive, needed adjustments were made in a timely fashion, and your follow-through was thorough, then the data-gathering phase will be successful.

The Northwest Regional Educational Laboratory has available a training system entitled Program Evaluation Skills for Busy Administrators. This basic manual contains six two-hour learning modules that cover (1) defining the purposes of evaluation, (2) describing a program or activity to be evaluated, (3) establishing evaluation guidelines, (4) preparing an evaluation plan, (5) implementing the evaluation, and (6) reporting evaluation findings. (Topics 5 and 6 are covered in Learning Experience III of this module.) The manual may be purchased and used independently, or your resource person could obtain a Workshop Leader's Guide and offer the training in a group workshop format.

The Program Evaluation Kit, a set of eight very practical guides written by and for evaluators, was developed at the Center for the Study of Evaluation at University of California at Los Angeles. The guides cover the following topics: (1) evaluator's handbook, including detailed, step-by-step directions and practice activities for conducting a formative evaluation, a summative evaluation, or a small experiment; (2) how to deal with goals and objectives; (3) how to design a program evaluation; (4) how to measure program implementation; (5) how to measure attitudes; (6) how to measure achievement; (7) how to calculate statistics; and (8) how to present an evaluation report. (Topics 7 and 8 are covered in Learning Experience III of this module.) You may wish to review any or all of the eight guides in this kit for further, more detailed information on program evaluation.

You can learn more about drawing PERT charts, estimating completion times, and sequencing activities by reading Cook, Program Evaluation and Review Technique: Applications in Education. This book can help you to identify critical paths and events, calculate "slack time," and determine when schedules must be changed or resources reallocated to meet deadlines.

All types of agencies can benefit from evaluation. The following "Case Situations" briefly describe two educational situations, each requiring the development and implementation of an evaluation plan. Read the situations described, and develop an evaluation plan for each, designed to meet the evaluation requirements of the situation. Because you are dealing with sketchy hypothetical situations, your plans need not be very detailed; however you should cover each of the major sections to be included in such a plan.

CASE SITUATIONS

Case Situation 1:

The occupational program at Sunbelt Community College is experiencing a decrease in enrollment, despite the fact that the surrounding area is generally prosperous and expanding economically. Sunbelt was established 15 years ago and has a fairly comprehensive program in the areas of industrial education, business and office education, and health occupations. A recent program review was made, and it was determined that the programs offered do indeed meet the employment needs of the community. The various aspects or features associated with a community college include facilities, location, instructional personnel, administration, instructional program, public relations, and others. The month is now April.

Case Situation 2:

Metro Heights Vocational School serves several "bedroom community" suburbs of a large metropolitan area. Since most of the residents of the area commute to work, automobiles are an important part of the lives of the people there. The director of the automotive mechanics program feels that the future of the program's graduates will be affected by design changes such as catalytic converters, solid state ignitions, diesel engines for cars, and overdrive transmissions. Furthermore, the need for frequent repair and service may be increased by the owners' reluctance to buy high-priced new cars, and their desire to keep their old cars in better "tune" to save gasoline. It is now October, and any changes in curriculum, recruiting, equipment, should be implemented at the beginning of the next academic year.

Compare your written evaluation plans with the "Model Plans" given below. Your plans need not exactly duplicate the models; however, you should have covered the same major points.

MODEL PLANS

Case Situation 1:

Purpose:	To stabilize or increase enrollment in the occupational program of a community college
Scope:	Public Relations Department Instructional Personnel
Key Evaluation Questions:	What public information services are currently being used? How do students learn about the Sunbelt program? Are students satisfied with the instruction they are getting? For what reasons do students drop out or fail to complete their programs? How can information services be improved?
Information Sources:	Current Students Existing Records Former Students
Data-Collection Techniques:	Interviews with current students Student evaluation instrument Review of existing records Questionnaire survey of former students

Schedule of Events:

Activities	Leader(s)	Target Dates Begin	End
Interview current students	***	May 1	May 10
Administer evaluation instrument to students	***	May 15	May 20
Review records	***	June 1	June 10
Survey former students	***	July 7	July 30
Analyze and summarize findings	***	Aug. 1	Aug. 30
Prepare report and disseminate findings	***	Sept. 1	Sept. 30
Implement recommendations	***	Oct. 1	June 30

Case Situation 2:

Purpose: To revise curriculum, equipment, and recruiting to better fit new technology

Scope: Automobile mechanics program

Key Evaluation Questions:

- Is the field of automotive repair and service expanding?
- What new skills and equipment must entry-level mechanics become familiar with?
- Are current graduates of this institution adequately prepared to use these skills and equipment?

Information Sources:

- Service managers of local automotive shops
- Instructors of auto mechanics
- Trade publications and associations
- Recent graduates
- Advisory committee members

Data-Collection Techniques: Interviews with selected auto shop managers and mechanics

Questionnaire survey of last four graduating classes

Review of trade literature

Schedule of Events:

Activities	Leader(s)	Target Dates	
		Begin	End
Review trade literature	***	Nov. 1	Nov. 12
Interview shop managers	***	Nov. 15	Dec. 10
Survey recent graduates	***	Nov. 15	Dec. 20
Analyze and report findings	***	Dec. 20	Jan. 15
Discuss results with faculty and advisory committee	***	Jan. 15	Jan. 30
Implement approved recommendations	***	Feb. 1	Aug. 30

Level of Performance: Your completed evaluation plans should have included each of the required components of such a plan (e.g., purpose, scope, etc.) and should have covered the same (or similar) major points as the models. If you missed some points or components or have questions about any additional points you made, review the material in the information sheet, "Developing and Preparing to Implement an Evaluation Plan," pp. 33-47, revise your plans accordingly, or check with your resource person if necessary.

Learning Experience III

OVERVIEW

After completing the required reading, plan how to use the evaluation data provided in a given case study.

You will be reading the information sheet, "Using Evaluation Data," pp. 57-67.

You may wish to read one or more of the supplementary references, Morris and Fitz-Gibbon, How to Present an Evaluation Report; and/or U.S. Office of Education, Preparing Evaluation Reports: A Guide for Authors.

You will be developing a list of conclusions and recommendations based on the partial program evaluation results described in the "Case Situation," pp. 69-70.

You will be evaluating your competency in developing a list of conclusions and recommendations by comparing your completed list with the "Model Conclusions/Recommendations," pp. 71-72.

For information on reporting evaluation results and using those results in program planning and decision making, read the following information sheet.

USING EVALUATION DATA

The use of evaluation results is as key a step in the evaluation process as any other. Without proper use of results, the most sophisticated data collection and judgments will be wasted. Therefore, this step should receive primary attention.

The process of using results has been traditionally overlooked, misunderstood, or underutilized. For example, reports of some well-conceived and well-conducted follow-up studies have not even reached those persons who may have had potential uses for their contents. In other cases, evaluation results have been written into a report and distributed to key individuals; however, their use did not extend beyond simple distribution and review. To attain the primary goal of evaluation--the improvement of offerings to students--evaluation results must be incorporated into the decision-making and planning processes of educational administrators, faculty, and support personnel.

The use of evaluation results can be divided into three interrelated steps: (1) interpreting, (2) reporting, and (3) decision making. The following sections provide descriptive information and suggestions concerning each of these steps. Again, your role in this process may vary, but since it is you who must make decisions based on the interpretations made, you should either be directly involved at this point or assign responsibility for interpretation and reporting to staff with the necessary expertise.

Interpreting

The interpretation of findings from an evaluation represents an important step in the evaluation process. Interpretation can occur at many levels, involving many different individuals and groups. For example, evaluation results might be displayed in a local newspaper. Consider the following presentation:

> A recent study conducted by Yankee Ridge Community College indicates that 90 percent of their vocational program

graduates obtained employment upon completion of their instruction. By program, the placement results were as follows:

Dental Hygiene	96%
Agricultural Mechanics	95%
Auto Mechanics	80%
Nursing	90%
Day-Care Assistance	60%

From this presentation of data, many interpretations can be made. What would you conclude? What would the typical taxpayer conclude? What would the community college president conclude? What would the day-care assistance program director conclude? Obviously, the conclusions could be different. This exemplifies the need, in most instances, to supplement the simple presentation of evaluation data or results with your interpretations of that data.

Interpretation of evaluative data should be directly related to the purpose of the evaluation. That is, if the purpose was to improve programs, then the data should be interpreted to facilitate improvement and not something else. Interpretation is the act of explaining or telling the meaning of something. The process, when associated with evaluation reports, can be structured around developing an answer to the question "What do these data mean?"

The results or answers to this question can assume three forms: (1) conclusions, (2) discussion, and (3) answers to key questions. Although the process for interpreting within each of the three forms is basically the same, the conclusion format is probably the most popular and most efficient means of communicating interpretations. An evaluative conclusion is a statement of judgment that has been based upon the systematic analysis of evaluative information. Therefore, it will be used as the model here.

In addition to asking "What do these data mean?" evaluators and decision makers also need to inquire "What are the implications of these data and conclusions?" In other words, "What happens next?" Thus, the evaluation effort must also include strong, clear recommendations that are founded on the results of the evaluation activities.

The formulation of both conclusions and recommendations can be undertaken by individual administrators, faculty members, students, advisory committee members, and others. Better than individual interpretation, however, is cooperative interpretation

involving a range of individuals who may have a stake in a particular program or evaluation focus. This concept of involving a broad cross section of personnel is just as important at this stage in the evaluation process as it was in the evaluation planning stages. Therefore, a logical first task in interpreting and writing conclusions and recommendations is to identify and assemble a group of individuals who can facilitate interpretation. You can assume the role of group leader or assign this responsibility to another qualified individual. Then, the following steps (or an adaptation of them) should be followed.

Step 1: General discussion. The staff conference should start with a presentation of a general overview of the task to be accomplished. Any questions regarding the procedures that were used in gathering the evaluation information should be raised and resolved. Then, each group member should be given an opportunity to offer comments or general information regarding the evaluation findings.

Step 2: State a conclusion. Each group member should be asked to draw one positive conclusion based upon the evaluation results. It may seem a waste of time to state positive conclusions regarding exemplary parts of the program when most evaluations seem to focus on deficiencies. However, there are sound practical and psychological reasons for focusing on the positive side. Psychologically, the consideration of positive program attributes will reassure program staff of the balanced nature of the evaluation. Practically, the inclusion of exemplary conclusions in the evaluation report can lead to using the strongest capacities and capitalizing on the program's strengths to overcome its recognized deficiencies. During the second "round," the group members might be allowed to present negative conclusions or identify areas of weakness that require improvement. As each person in the group presents a conclusion, that person or a stenographer should record the conclusion.

Step 3: Review initial conclusions. The group leader should then review each of the conclusions that were developed in step 2 and give his/her reactions to the conclusion. This step will help ensure a consistent format and style for formulating subsequent conclusions. The following questions can aid in the analysis of initially developed conclusions:

1. Is there sufficient evidence to support the conclusion?
2. Does the conclusion reflect the consensus of the group?
3. Is the conclusion compatible with the major goal and purpose of the evaluation?
4. Is the statement precise and does it specifically note a characteristic of the program?

Step 4: Team development of conclusions and associated recommendations. The size of the group will dictate the method used in formulating a series of conclusions and recommendations that relate to the purposes of the evaluation. If small-group divisions are made, with each small group considering only one segment of the evaluation results (such as those pertaining to a single evaluation objective), the entire group should, at some point, be afforded the opportunity to react to all conclusions. This can be accomplished by designating a leader for each small group who will be responsible for presenting the group's decisions orally. To encourage reaction and discussion by the group, it is good to disseminate conclusions and recommendations in written form also or to present them using an overhead projector. They should be revised or accepted intact, depending upon the group consensus.

Step 5: Edit conclusions and recommendations. The group leader or evaluation director should collect all conclusions and recommendations from small-group leaders. The leader should review them and reword those that are in need of correction. All statements should be made parallel in style before they are included in the printed evaluation report. Furthermore, the conclusion statements should refer to the data or processes leading to each conclusion; in similar fashion, the recommendations should be tied in closely with related conclusions.

Step 6: Staff review of written conclusions and recommendations. Once the leader has edited the conclusions and recommendations, these should be duplicated and given to staff for their consideration. Staff members should be asked to review the documents and return the copy to the leader, with comments, by an established date.

These six steps can provide the basis for interpreting a set of evaluative data. A final step should involve inclusion of these interpretations in the evaluation report.

Reporting

The reporting of evaluative outcomes or results is sometimes thought of as a nonessential activity, especially if the evaluator is an administrator or a key individual in the decision-making or planning process. However, unless evaluation procedures and findings are documented, the credibility of an evaluation may suffer. Additionally, an evaluation report provides a vehicle through which a variety of individuals may be involved in improving programs and services.

The preparation of an evaluation report should be a straightforward process with a given purpose and scope in mind. In other words, the report should reflect the original evaluation plan. The report should not be an esoteric research report; it should be a tool for communicating the results of evaluation to those individuals or groups who can use them.

Since there may be different groups with different backgrounds and different potential uses of evaluative information, it may be necessary to prepare different versions of an evaluation report. Regardless of how many groups there may be, a first step in reporting is the identification of audiences for the report. The purpose of the evaluation system will usually provide, either directly or indirectly, an indication of who the potential audiences might be. For example, if an evaluation system purpose was "to provide accountability information to funding agency personnel," then the obvious audience is the funding agency personnel. If the purpose was "to improve the curriculum materials used in the dental hygiene program," then the likely recipients of the evaluative information are program faculty and curriculum or media personnel.

Audience identification is important in reporting because the material included, language used, background information required, and other features need to be specifically designed to meet the needs and characteristics of each audience. If the results are to be reported to the general public, then the style, format, and vocabulary level might approach that used in Time, Newsweek, or a newspaper. If, on the other hand, the audience is made up of researchers or curriculum development specialists, the report might take on a more technical flavor. In either case, clarity is more important than "making an impression" with your use of jargon.

Generally, the evaluation report should contain five sections or components: (1) purpose and scope of the evaluation, (2) description of the program or unit being evaluated, (3) description of the evaluation methodology used, (4) evaluative findings, and (5) conclusions and recommendations. Much of the information for these five sections can be derived or transferred from the original evaluation plan.

The first section presents the purpose and scope statement. This can be taken directly from the evaluation plan. In addition, it may be useful to include a brief introduction that sets the tone for the remaining parts of the report. The key questions may also be presented to provide the reader with a more specific idea of the evaluative focus.

The second section--program description--should provide the reader with an overview of the program being evaluated. This

should help the reader to understand the context, constraints, and resources associated with the program. This section might include program goals, student performance objectives, description of students, description of program staff, and other program characteristics.

The third section of the report should present a detailed description of the evaluation methods and instruments used. This description may be taken, in part, from the evaluation plan, with additional details provided regarding the instruments or forms used. For example, if one evaluation activity was a follow-up survey, the description might indicate that a questionnaire was mailed to 300 former students on May 1, 1980 and that an 80 percent response rating was attained. Additionally, an overview of the questionnaire content might be provided, or a sample copy could even be included.

The fourth section of the evaluation report should present the findings or outcomes of the evaluation activities, including a display of the information that was collected. The way evaluative results are portrayed is somewhat dependent upon who will be the primary audience or readers of the report. This portrayal can be considered in two ways. The first involves the way in which the information is grouped or categorized. The second deals with the form or format in which the data are displayed.

One type of data grouping involves the presentation of information (1) according to how it was collected, or (2) by respondent groups. For example, if an evaluation included a student follow-up study, an employer survey, and a survey of current students, the data could be grouped according to these populations.

A second type of data grouping involves breaking evaluation results down according to the types of issues or key questions they address. For example, if an evaluation focuses on two major components, such as student services and administrative structure, evaluation results from a variety of evaluation activities or data-collection techniques could be grouped into these two areas. Further grouping could be accomplished by taking each key question and displaying all data associated with it. This assists the audience of the report in comparing, contrasting, and aggregating data that pertains to a single point.

This approach--relating data to key questions--is the preferred approach. It emphasizes the use of information in formulating answers to questions and also facilitates the interpretation and ultimate use of evaluative results.

There are many different ways of presenting or displaying evaluative information within either of the aforementioned approaches. Again, the audience should be a consideration in choice of format. The underlying criterion in choosing a display format should be the question "What is the best technique for communicating the results to the audience?" The potential display formats include, but are not limited to, bar graphs or tables of percentages, frequency counts, and averages. (See sample 8 for examples of these formats.)[3]

The fifth (and probably most important) section of the report should contain the interpretations--conclusions and recommendations--of the information displayed. This section will help the reader translate the numerous data and should make it clear concerning what, if any, action is called for as a result of the entire evaluation process.

The actual conclusion and recommendation statements should already have been edited in accordance with step 5 of the group interpretation process (see p. 60). When preparing the report, you should also pay particular attention to the order and manner in which these statements are presented. For example, you would want to list positive conclusions (strong areas) before citing negative conclusions (weaknesses). Also, each conclusion describing an area needing improvement should be followed immediately by recommendations concerning how this problem could be remedied. (Arrange recommendations in order of importance or acceptability.)

Be sure that each recommendation states a required action clearly and affirmatively. Don't say "Alumni affairs need to be considered"; rather, suggest a specific step such as "Form an alumni association and provide the necessary office and staff assistance." If one recommendation might not be feasible because of limited resources, list it first anyway and then provide an alternative, e.g., "Obtain talking-book versions of key textbooks for visually-impaired students; if sufficient funds are not available, secure paid or volunteer readers to assist students with these special needs."

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3. To gain additional skill in presenting evaluative information, you may wish to refer to Module A-3, Report the Findings of a Community Survey, part of the Professional Teacher Education Module Series produced by the National Center for Research in Vocational Education (Athens, GA: American Association for Vocational Instructional Materials, 1978).

SAMPLE 8

DATA-DISPLAY FORMATS

1. Ratings of students' initiative by employers:

Bar Graphs

	Female	Male
High	10%	0%
Average	40%	30%
Low	40%	70%

Percentages

	Female	Male
High	𝍸 𝍸	I
Average	𝍸 𝍸 𝍸	𝍸 𝍸
Low	𝍸 𝍸 𝍸	𝍸 𝍸 𝍸

Frequency Counts

Female Average = 2.5

(High = 3, Low = 1)

Male Average = 1.9

Averages

Decision Making

Evaluation in general, and specifically in vocational education, can be focused on improved decision making. Decision making should, however, be considered from its broadest point of view. That is, planning, program improvement, and resource allocation are all forms of decision making. Therefore, they represent uses of evaluative information.

Stufflebeam et al.[4] have outlined four types of decisions in education: (1) planning, (2) programming, (3) implementing, and (4) recycling.

Planning decisions are those that focus on needed improvements by specifying the domain, major goals, and specific objectives to be served. Evaluative information, such as needs assessment data and demographic information, aids in making these types of decisions.

Programming decisions specify procedures, personnel, facilities, resources, and time requirements for establishing and planning a program. These types of decisions are obviously also a type of planning decision.

Implementation decisions include those that guide the implementation or installation of a program activity. Evaluative information is useful in this type of decision, which can be thought of as primarily involving program improvement.

Finally, recycling decisions deal with the alternatives of terminating, sustaining, adjusting, or drastically modifying an educational program. The information gained from evaluation is important in deciding program priorities and allocations of resources, since not all activities can be carried on or expanded indefinitely.

Most of these decisions involve some type of change. Each evaluation report, whether a needs assessment report or a comprehensive program report, can provide an interpretation of a problem or a need. Sample 9 presents a pictorial view of a sequence of events that leads to rational decision making and program improvement.

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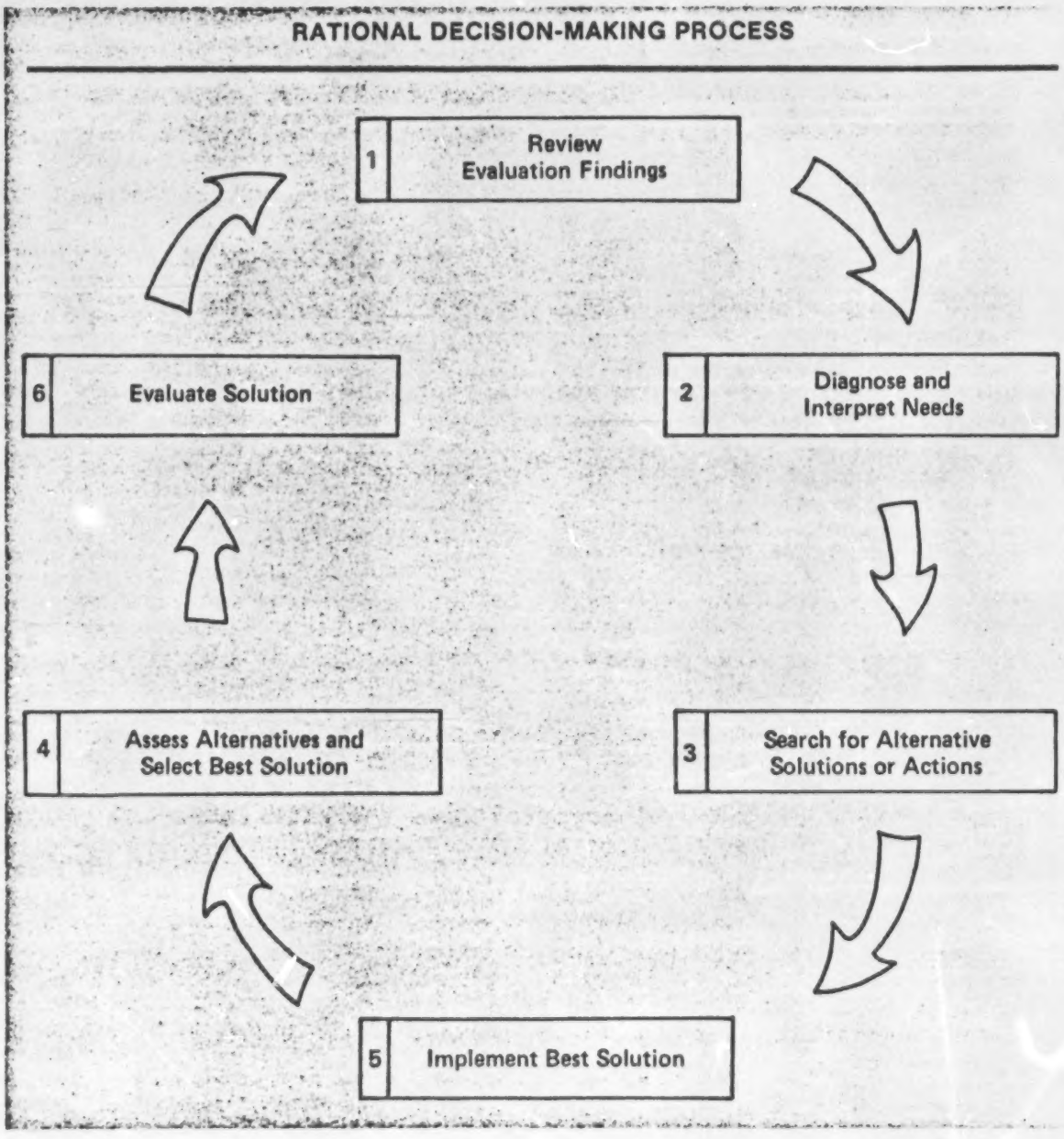
4. Phi Delta Kappa National Study Committee on Evaluation: Daniel L. Stufflebeam et al., Educational Evaluation and Decision-Making (Itasca, IL: F. E. Peacock Publisher, Inc., 1971).

SAMPLE 9


RATIONAL DECISION-MAKING PROCESS
1 Review Evaluation Findings
2 Diagnose and Interpret Needs
3 Search for Alternative Solutions or Actions
4 Assess Alternatives and Select Best Solution
5 Implement Best Solution
6 Evaluate Solution

The loop in sample 9 starts with the evaluative data and goes next to interpretation. These two steps are delineated in detail within previous sections of this information sheet. The third step involves the search for alternative solutions or actions that can correct the identified problem or improve the deficient situation. This step begins with an analysis of existing resources. A logical starting place is to involve the expertise, experiences, and knowledge of existing staff. Brainstorming sessions and open discussions can often uncover excellent ideas for the remedy of identified problems. Other activities that can extend staff knowledge of other solutions or resources include the following:

- Attendance at professional meetings
- Visits to other agencies
- Phone calls to outsiders

Once a bank of alternatives has been acquired, the fourth step should involve the assessment of alternatives and the selection of one solution for implementation. This step is mostly based on common sense; however, there are several techniques that can improve the process. These include (1) acquiring an overview or description of each alternative from a comprehensive written source, (2) contacting at least one person who has had direct experience with the alternative, (3) observing the alternative in action in another setting, (4) obtaining evaluative data on the alternative from another source, (5) pilot testing the alternative, and (6) involving appropriate others in the selection of the best alternative. Any of these techniques will help in better understanding an alternative and lead to a better more rational-based decision. Involving persons who will be directly affected by or concerned with the implementation of a decision is always a wise management decision.

The fifth step in sample 9 is the implementation of the best alternative in the educational program. This involves informing staff, delegating responsibility, and monitoring implementation.

The sixth step in the loop is evaluation of the solution after it has been implemented. Usually, the same evaluation method as was employed in the original evaluation can be used to evaluate the alternative. However, it may be possible to improve the efficiency of the evaluation effort based upon the original experience. And, thus, evaluation continues. It is built into new program plans, underscores the implementation process, measures program results, suggests needed changes, and is built into the plans for carrying out those changes. It is, in sum, not a device for accumulating a data bank per se, but a device for continual program improvement. It is your responsibility as administrator to ensure that evaluation does, in fact, serve this purpose.

Two excellent references that you may wish to review if you want more in-depth information on the reporting of evaluation data are Morris and Fitz-Gibbon, How to Present an Evaluation Report; and U.S. Office of Education, Preparing Evaluation Reports: A Guide for Authors.

How to Present an Evaluation Report is an 80-page paperback designed "to help you convey the evaluation information you have collected to your various audiences as effectively and painlessly as possible." It is simply and clearly written, contains help in organizing your thoughts, provides an evaluation report outline with explanations of each section of the outline, gives practical tips about preparing different types of reports for different audiences, and provides information on using graphs and tables to present data.

Preparing Evaluation Reports: A Guide for Authors is a government-prepared 68-page paperback to help persons preparing evaluation reports for educational programs. Four sections provide assistance in (1) what to include to describe the context or background (e.g., local demographics and school system characteristics) of the program being evaluated, (2) how to describe the program itself, (3) how to report evidence of changes brought about by the program, and (4) how to derive and report recommendations. In addition, there is a five-page listing of related references, grouped by difficulty level (easy, harder, difficult), and covering (1) research methodology and experimental design, (2) sampling, (3) measurement: test theory, (4) measurement: test construction, (5) measurement: periodicals relevant to educational testing, (6) analyzing data, and (7) data processing. Finally, the reference includes a ten-page sample of a narrative evaluation report.

The following "Case Situation" briefly describes the findings from a program evaluation conducted at a community college. Read the situation and findings described and (1) develop a list of conclusions that help to explain the information presented, and (2) briefly describe the recommendations you would make based on your conclusions.

CASE SITUATION

The dean of career programs at Danville Area Community College has recently directed an evaluation of the computer technology program within the business department. A student follow-up survey, an employer survey, a survey of current students, and a polling of advisory committee members were conducted as part of the evaluation. The following fragments of data represent part of the findings:

Student Follow-up (120 were surveyed; 80 responded)

- 80 percent of the graduates were placed
- 90 percent of the graduates felt the program was relevant
- 65 percent of graduates thought the course covering equipment was out of date

Employer Survey (34 were contacted; 26 replied)

- 100 percent of responding employers were generally satisfied with the training of graduates
- 16 employers indicated, in comments, that graduates were not familiar with their data-entry equipment

Current Student Survey

The following items related to instructional materials:

		SA	A	D	SD
14.	The instructional equipment in this program is current.	70%	10%	20%	0%
15.	The software packages are adequate.	90%	10%	0%	0%
16.	The textbooks used in this program are current.	60%	10%	30%	0%

Advisory Committee Poll

Advisory committee members made the following comments:

1. The program is well administered.
2. The curriculum is current.
3. Some equipment is obsolete.

Compare your written conclusions and recommendations with the "Model Conclusions/Recommendations" given below. Your responses need not exactly duplicate the model; however, you should should have covered the same major points.

MODEL CONCLUSIONS/RECOMMENDATIONS

Conclusions

1. Based upon student follow-up, employer survey, and advisory committee poll, the equipment used in some parts of the program is becoming outdated. A small percentage of current students also identified this as a problem.

2. A sizable percentage of current students feel that the textbooks used are not current, but this is not reflected in the responses by those in the real world of work: employers, graduates, and advisory committee members.

3. According to all four sources, the program seems, overall, to be reasonably effective: placement is high; current students, graduates, and employers are generally satisfied; and advisory committee members feel the program is well administered.

Recommendations

1. Make program staff aware of the overall strengths of their program, a fact that provides a firm base from which to make improvements.

2. Obtain additional information concerning the adequacy of the textbooks. Are these texts a part of the course on equipment--a course that graduates thought was out of date? Have employers and advisory committee members reviewed these texts, and if so, what were their views concerning their adequacy?

3. Update the curriculum for the course covering equipment, based on a recent analysis of the skills required on the job.

4. Purchase more up-to-date equipment (e.g., data-entry equipment). If funding is not presently available, add activities to the curriculum to provide students with experience in working with such equipment through other means (e.g., a workshop conducted in a local business or computer equipment supply company, or on-the-job training).

Level of Performance: Your completed conclusions and recommendations should have covered the same major points as the model. If you missed some points or have questions about any additional points you made, review the material in the information sheet, "Using Evaluation Data," pp. 57-67, or check with your resource person if necessary.

Learning Experience IV

FINAL EXPERIENCE

While working in an actual administrative situation, direct program evaluation.*

As part of your administrative duties, direct a program evaluation effort. This will include--

- selecting a small program or program aspect that merits evaluation
- preparing or directing the preparation of an evaluation plan
- gaining approval for the plan
- involving appropriate groups in the evaluation process
- collecting or arranging for the collection of data
- interpreting or arranging for the interpretation of the evaluation results
- preparing or directing the preparation of an evaluation report(s)
- using the evaluation data in decision making

NOTE: As you complete each of the above activities, document your activities (in writing, on tape, through a log) for assessment purposes.

continued

*If you are not currently working in an actual administrative situation, this learning experience may be deferred, with the approval of your resource person, until you have access to an actual administrative situation.

FINAL EXPERIENCE continued

Your resource person may want you to submit your written evaluation plan for review before you proceed with your actual evaluation efforts.

Due to the nature of this experience, you will need access to an actual administrative situation over an extended period of time (e.g., three to twelve months).

Arrange to have your resource person review your plan, data, evaluation report, and any other documentation you have produced. If possible, arrange to have your resource person observe your performance at a point when you are directly involved in the process (e.g., orienting others to their roles and responsibilities, directing the development of an evaluation plan on a small-group basis).

Your total competency will be assessed by your resource person, using the "Administrator Performance Assessment Form," pp. 75-77.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in directing program evaluation.

Name _____

Date _____

ADMINISTRATOR PERFORMANCE ASSESSMENT FORM

Direct Program Evaluation

Directions: Indicate the level of the administrator's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
1. A reasonable component or program was selected for evaluation.....	☐	☐	☐	☐	☐	☐
2. The administrator assumed an appropriate degree of responsibility for the development of an evaluation plan.....	☐	☐	☐	☐	☐	☐
3. The completed evaluation plan included the following appropriately stated and complete components:						
a. purpose statement.....	☐	☐	☐	☐	☐	☐
b. scope statement.....	☐	☐	☐	☐	☐	☐
c. key questions.....	☐	☐	☐	☐	☐	☐
d. activities, information sources, and instruments.....	☐	☐	☐	☐	☐	☐
e. time line.....	☐	☐	☐	☐	☐	☐
f. names of persons responsible for specific task assignments.	☐	☐	☐	☐	☐	☐

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
4. The scope of the planned evaluation is realistic (e.g., time involved, resources available)....	☐	☐	☐	☐	☐	☐
5. The evaluation plan is internally consistent (i.e., the activities, information sources, and instruments selected are appropriate means for responding to the key questions).....	☐	☐	☐	☐	☐	☐
6. The administrator gained approval for the plan from appropriate individuals and groups.....	☐	☐	☐	☐	☐	☐
7. Appropriate data-collection techniques were selected and used.....	☐	☐	☐	☐	☐	☐
8. The administrator assumed an appropriate degree of responsibility for:						
a. the collection of data.....	☐	☐	☐	☐	☐	☐
b. the interpretation of data....	☐	☐	☐	☐	☐	☐
c. the preparation of an evaluation report(s).....	☐	☐	☐	☐	☐	☐
9. The completed evaluation report(s) included the following appropriately stated and complete components:						
a. purpose and scope statement...	☐	☐	☐	☐	☐	☐
b. description of procedures followed.....	☐	☐	☐	☐	☐	☐
c. description of evaluation methodology used.....	☐	☐	☐	☐	☐	☐
d. evaluation findings.....	☐	☐	☐	☐	☐	☐
e. conclusions and recommendations.....	☐	☐	☐	☐	☐	☐

		LEVEL OF PERFORMANCE					
		N/A	None	Poor	Fair	Good	Excellent
10.	The procedures and methodology used were consistent with the original evaluation plan.....	☐	☐	☐	☐	☐	☐
11.	The findings, conclusions, and recommendations are consistent with the raw data collected.....	☐	☐	☐	☐	☐	☐
12.	Each evaluation report answers satisfactorily the key questions delineated in the evaluation plan.	☐	☐	☐	☐	☐	☐
13.	The administrator involved the following persons or groups throughout the evaluation process (planning, implementing, interpreting, reporting) as appropriate:						
	a. instructors/teachers.....	☐	☐	☐	☐	☐	☐
	b. advisory group(s).....	☐	☐	☐	☐	☐	☐
	c. administrators.....	☐	☐	☐	☐	☐	☐
	d. support personnel.....	☐	☐	☐	☐	☐	☐
	e. students.....	☐	☐	☐	☐	☐	☐
	f. external evaluators.....	☐	☐	☐	☐	☐	☐
	g. community organizations.....	☐	☐	☐	☐	☐	☐
14.	The administrator involved others and used the evaluation data in decision making.....	☐	☐	☐	☐	☐	☐

Level of Performance: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the administrator and resource person should meet to determine what additional activities the administrator needs to complete in order to reach competency in the weak area(s).

ADDITIONAL RECOMMENDED REFERENCES

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McKinney, Floyd L., and Manneback, Alfred J. Evaluating MDTA Programs: Workshop Proceedings and Participant Follow-up. Lexington, KY: University of Kentucky, College of Education, Department of Vocational Education, Kentucky Research Coordinating Unit, 1971. Pp. 207-319.

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Winter, Gene M.; Fadale, LaVerna M.; Beamish, Eric; and Beuke, Verne. Reality-Based Evaluation for Two-Year College Occupational Programs: Guidebook. Revised Edition. Ithaca, NY: Cornell University, New York State College of Agriculture and Life Sciences, 1976.

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